

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (withdrawn) An electrode for secondary batteries which comprises a first and a second surface both showing electrical conductivity and adapted to be brought into contact with an electrolytic solution and an active material layer containing active material particles positioned between said surface and has no thick conductor for current collection.

2. (withdrawn) The electrode according to claim 1, which has a large number of microvoids which are open on at least one of the first surface and the second surface, lead to the active material layer, and allow the electrolytic solution to pass.

3. (withdrawn) The electrode according to claim 2, which has a pair of surface layers for current collection inclusive of the first surface and the second surface, respectively, the microvoids being formed in at least one of the surface layers and extending in the thickness direction of the at least one of the surface layers, and the active material layer being positioned between said surface layers.

4. (withdrawn) The electrode according to claim 3, which has an electrically conductive material filled in the active material layer over the entire thickness direction thereof to electrically connect the surface layers and exhibits a current collecting function as a whole.

5. (withdrawn) The electrode according to claim 3, wherein the surface layers each have a thickness of 0.3 to 20 μm .

6. (withdrawn) The electrode according to claim 1, wherein the active material particles are particles of a hydrogen storage alloy or particles containing an element having high capability of forming a lithium compound.

7. (withdrawn) The electrode according to claim 1, wherein the active material layer is formed by applying an electrically conductive slurry containing the active material particles.

8. (withdrawn) The electrode according to claim 3, wherein the surface layers are formed by electroplating.

9. (withdrawn) The electrode according to claim 1, which has a total thickness of 1 to 500 μm .

10. (withdrawn) The electrode according to claim 1, which is an anode for a nonaqueous secondary battery and which comprises a pair of surface layers for current collection each having a surface that is adapted to be brought into contact with a nonaqueous electrolytic solution and at least one active material layer which is disposed between the surface layers and contains particles of an active material having high capability of forming a lithium compound,

at least one of the surface layers having a large number of microvoids extending in the thickness direction thereof and allowing the nonaqueous electrolytic solution to pass, and

a material which has low capability of forming a lithium compound being filled between the particle formed in the at least one active material layer and being different from at least one of the material constituting one of the surface layers.

11. (withdrawn) The electrode according to claim 10, wherein at least one of the surface layers has a multilayer structure composed of at least two sublayers different in material, and at least one of the materials constituting sublayers is different from said material having low capability of forming a lithium compound and filled in the at least one active material layer.

12. (canceled)

13. (currently amended) An electrode for secondary batteries, comprising:

a first and a second surface both showing electrical conductivity and adapted to be brought into contact with an electrolytic solution, an active material layer containing active material particles positioned between said first surface and said second surface, and

an electrically conductive foil in the middle of the thickness direction thereof,

wherein the active material layer is present on both sides of the conductive foil, and

the active material layer further contains an penetration plated electrically conductive metallic material which is deposited on the active material particles and is continuously filled between the active material particles over the entire thickness direction of the active material layer.

14. (original) The electrode according to claim 13, which has a total thickness of 1 to 600 μm .

15. (previously presented) The electrode according to claim 13, wherein the active material layer formed on each side of the conductive foil contains an element having a capability of forming a lithium compound, and

a metallic lithium layer is provided between the conductive foil and the active material layer on at least one side of the conductive foil.

16. (withdrawn) A secondary battery having the electrode according to claim 1 as a cathode or an anode.

17. (original) A secondary battery having the electrode according to claim 13 as a cathode or an anode.

18. (previously presented) The electrode according to claim 13, which has a large number of microvoids which are open on at least one of the first surface and the second surface, lead to the active material layer, and allow the electrolytic solution to pass.

19. (previously presented) The electrode according to claim 18, which has a pair of surface layers for current collection inclusive of the first surface and the second surface, respectively, the microvoids being formed in at least one of the surface layers and extending in the thickness direction of the at least one of the surface layers, and the active material layer being positioned between said surface layers.

20. (previously presented) The electrode according to claim 19, which has an electrically conductive material filled in the active material layer over the entire thickness direction thereof to electrically connect the surface layers and exhibits a current collecting function as a whole.

21. (previously presented) The electrode according to claim 19, wherein the surface layers each have a thickness of 0.3 to 20 μm .

22. (previously presented) The electrode according to claim 13, wherein the active material particles are particles of a hydrogen storage alloy or particles containing an element having a capability of forming a lithium compound.

23. (previously presented) The electrode according to claim 13, wherein the active material layer is formed by applying an electrically conductive slurry containing the active material particles.

24. (previously presented) The electrode according to claim 19, wherein the surface layers are formed by electroplating.

25. (previously presented) The electrode according to claim 13, which is an anode for a nonaqueous secondary battery and which comprises a pair of surface layers for current collection each having a surface that is adapted to be brought into contact with a nonaqueous electrolytic solution and at least one active material layer which is disposed between the surface layers and contains particles of an active material having a capability of forming a lithium compound,

at least one of the surface layers having a large number of microvoids extending in the thickness direction thereof and allowing the nonaqueous electrolytic solution to pass, and

a material which has a lower capability of forming a lithium compound than said active material being filled between the particle formed in the at least one active material layer and being different from at least one of the material constituting one of the surface layers.

26. (previously presented) The electrode according to claim 25, wherein at least one of the surface layers has a multilayer structure composed of at least two sublayers different in material, and at least one of the materials constituting sublayers is different from said material having lower capability of forming a lithium compound and filled in the at least one active material layer.

27. (previously presented) The electrode according to claim 13, wherein the active material layer has vacant spaces between the active material particles.

28. (new) The electrode according to claim 13, wherein the active material particles have a size of 20-53 μm .

29. (new) The electrode according to claim 13, wherein the active material particles have a size of <20 μm .

30. (new) The electrode according to claim 13, wherein the active material particles have a median particle size of 1-50 μm and a maximum particle size of 100 μm .

31. (new) The electrode according to claim 20, wherein the electrically conductive material is acetylene black having a particle size of 0.1 μm .